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ABSTRACT

With the constant and accelerating growth of vocational education in the State of Ohio and the increased dollars called for in its operation, some means of accountability to the public has become necessary. The program involves 23 percent of the students in the Ohio high schools. In the 1972-73 academic year 113,041 students were enrolled. This publication is intended to provide answers relating to the cost effectiveness of the program. Interviews with 1022 persons (employers and the young adults whom they employ) provided the data from which conclusions were drawn. The study itself makes no statement as to whether the use of any particular curriculum caused the young adults in the sample to have the attitudes and outlooks that they have. The findings of this opinion survey indicate however that there are differences today between young adults who are graduates of approved vocational education programs and graduates of other curriculums, and that these differences are largely in the direction of making vocational graduates better employees, both in their own self concept and in the eyes of their employers. (Author/SN)

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# EMPLOYERS AND YOUNG ADULTS LOOK AT VOCATIONAL EDUCATION.

Ohio Advisory Council
for Vocational Education

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# EMPLOYERS AND YOUNG ADULTS

# LOOK AT VOCATIONAL EDUCATION

**OHIO ADVISORY COUNCIL FOR VOCATIONAL EDUCATION**
Columbus, Ohio 43229

1973

Additional copies of this report will be made available on request to:

Ohio Advisory Council for Vocational Education
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# FOREWORD

In the 1972-73 academic year, 113,041 students are enrolled in job training approved, reimbursable vocational education programs in high schools of Ohio.[1] Such programs meet standards for vocational education established by the State Board of Education and are directed toward the goal of equipping students for job placement upon high school graduation.

Job training vocational education is a growing program, involving 23% of the students of Ohio high schools who are eligible to enroll:

**Job Training Vocational Education Enrollment Growth:**

| Year | Students |
|---|---|
| 1968 | 50,400 |
| 1969 | 59,595 |
| 1970 | 77,005 |
| 1971 | 90,232 |
| 1972 | 99,785 |
| 1973 | 113,041 |

Educational institutions and programs are called upon to be accountable today both to those whom they are designed to serve and to the taxpayers who provide support. It is fair then for Ohio citizens to ask, "Do approved, reimbursable vocational education programs show any tangible positive results?" Does such vocational education produce graduates trained for meaningful employment after high school? Does vocational education have any effect on the job attitudes of its graduates as employees? Do these vocational graduates evaluate their high school experiences any differently than do graduates of college preparatory, general, or non-approved (non-job training) vocational programs? Do employers find that vocational graduates make different or better employees than Ohio high school graduates from other programs?

[1] An additional 107,822 are enrolled in consumer, family living and career education programs, bringing total vocational enrollment to 220,863. This study concerns only those who took job training programs.

The Ohio Advisory Council for Vocational Education sponsored an evaluation study to answer these questions. The study was designed and conducted by Market Opinion Research of Detroit, under the direction of Dr. Barbara Everitt Bryant. Some portions of the Advisory Council's study are follow-ups on a statewide survey made for the Division of Planning and Evaluation, Department of Education, State of Ohio.[2]

The Ohio Advisory Council for Vocational Education reports now to the citizens of Ohio from two perspectives. The first is the perspective of the Ohio employers who employ either graduates of approved reimbursable vocational education programs or graduates of other high school programs. The second is the perspective of young adults ages: 19-20, and 25-26 (born 1952 and 1946) who have completed high school in 1970 or 1964, and are now employed in Ohio.

One means for evaluation is to make comparisons. This study compares the attitudes and opinions of employers and employed young adults who have experienced the approved reimbursable vocational education programs with the attitudes and opinions of matched samples of employers, and young adults whom they employ, who studied other high school curricula offered at the same time: college preparatory, general, and non-approved vocational course programs.

The comparisons are not intended to downgrade one curriculum or boost another. They are rather meant to answer whether approved, reimbursable vocational education is meeting its stated goals. Those goals are to equip young adults with the job skills and attitudes which will offer individual opportunity for productive and meaningful careers.

Findings of this study are based on personal interviews with 1022 individuals: 511 employers and 511 young adults whom they employ. The young adults are divided into two **matched** statewide samples: 254 graduates of approved, reimbursable vocational education programs in Ohio high schools and 257 high school graduates from other programs. The employers are the immediate supervisors of each of the 511 young adults interviewed. Their names were obtained from these young adults.

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[2] *A Look Toward Educational Redesign:* Ohio's Schools as Seen by Young Adults. Edward J. Cruttenden, Ed., (Columbus: Ohio Department of Education, 1972).

The same interview questionnaire was used with employers who supervised vocational graduates and those who supervised graduates of other curricula. At the time of interview, each employer had no clue that a comparison would be made later of different types of high school education. The employer knew only that he was evaluating the training and preparation of his own employee as provided by an Ohio high school. Information for the study thus comes from four groups:

254 young adults who graduated from Ohio high schools in approved, reimbursable vocational programs and are currently employed.

254 employers who were named by the approved vocational graduates as their immediate employment supervisors.

257 young adults who graduated from Ohio high schools in college preparatory and general curricula, including some who took vocational courses but not full programs meeting state vocational standards for job training. All are currently employed.

257 employers who were named by the graduates of other curricula as their immediate employment supervisors.

Since four separate samples are used in this study, the sampling design is complex. For those concerned about such design, full details of the sampling process and sample comparisons are presented in the Statistical Appendix.

Before presenting findings of the study, it is well to keep in mind what it was designed to do and what it does not cover.

First the study is based on interviews with **employed** young adults ages 19-20 and 25-26 who are **graduates** of Ohio high schools. It, therefore, makes no comment on the unemployed, the high school dropout, or the many high school graduates who (particularly at ages 19-20) are full-time students, or (particularly at ages 25-26) are full-time housewives.

The two age groups interviewed were selected for specific reasons. The younger group represent those who completed high school recently, yet

have had time to obtain some work experience. The older group represent those who completed high school when approved, reimbursable vocational education was in its early stages.

The samples for comparison are matched in the sense that they were drawn by the same methods and from the same age group populations. They do not remain matched in every detail because young adults who studied approved, reimbursable vocational education are different from those who studied other curricula, as findings of the study will demonstrate. In particular, vocational students tend more to come from the academic 2nd and 3rd quarters of their high school classes, whereas, college preparatory students tend more to come from the 1st and 2nd quarters, and general curriculum students more from the 3rd and 4th. Thus sample selection was not controlled to equal quarters. To have done so would not have served to match the samples, but rather to distort the results.

Finally, this study makes no statement as to whether the study of any particular curricula **caused** the young adults reported upon to be as they are today. Perhaps they were different people initially, and would have remained different if they had all been forced to study the same curriculum.

What this study does do is report the attitudes and outlooks of young adults and their employers as they are today. The study makes no judgments as to whether these outlooks and attitudes are the results of educational programs, socio-economic backgrounds, or self-selection procedures. The results of the study do indicate that:

There are differences today between young adults who are graduates of approved, reimbursable vocational education programs and graduates of other curricula.

These differences are largely in the direction of making the vocational graduates better employees, both in their own self concept and in the eyes of their employers.

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# CHAPTER ONE

# THE WORKING YOUNG ADULT: A PROFILE

At age 19-20, approximately one year out of high school, employed young adults tend to be clustered in clerical and sales jobs. Six years later, at age 25-26 their occupational distribution is broader as Table 1 shows.

Approved vocational education graduates are proportionally more in skilled crafts and less in service occupations than are those in a matched sample aggregated from college preparatory, general, and non-job training vocational graduates. By age 25-26 some of the college preparatory students have completed college and moved into professional and technical jobs. Vocational education graduates have increased their proportions in the skilled crafts.

**Table 1**

**Occupations of young adult employees by census categories**

| | Approved Vocational Education Graduates | | Aggregate Group of Other Curricula Graduates | |
|---|---|---|---|---|
| | Age 19-20 | Age 25-26 | Age 19-20 | Age 25-26 |
| Professional/Technical | 3% | 3% | 2% | 16% |
| Farm owner/Manager | 1 | 3 | – | – |
| Business officials | 6 | 13 | 1 | 10 |
| Clerical/Sales | 51 | 20 | 41 | 22 |
| Skilled craftsmen/Foremen | 14 | 33 | 9 | 14 |
| Operative/Kindred workers (unskilled) | 12 | 20 | 9 | 22 |
| Service workers/Laborers | 10 | 7 | 20 | 12 |
| Other | 2 | – | 16 | 2 |
| Interview base: | (224) | (30)* | (171) | (86) |

*Small sample size reflects the smaller proportion of students enrolled in approved vocational education.

Table 2 demonstrates that immediately after high school approved vocational graduates have more earning power than those from other curricula. By age 25-26 earning power is more evened out.

Table 2

| Individual income | Approved Vocational Graduates | | Aggregate Group of Other Curricula Graduates | |
|---|---|---|---|---|
| | Age 19-20 | Age 25-26 | Age 19-20 | Age 25-26 |
| Less than $3,000 | 11% | 3% | 36% | 2% |
| $3,000-4,999 | 30 | 3 | 29 | 6 |
| $5,000-5,999 | 24 | 20 | 13 | 7 |
| $6,000-6,999 | 13 | 10 | 11 | 12 |
| $7,000-7,999 | 15 | 27 | 6 | 35 |
| $10,000-14,999 | 1 | 27 | 2 | 16 |
| $15,000 and over | – | – | – | 3* |
| Refused | 6 | 10 | 2 | 19 |
| Interview base: | (224) | (30)** | (171) | (86) |

*These individuals were college preparatory in high school and are probably college graduates now.

**See note Table 1.

Eighty-three percent of approved vocational graduates who are 19-20 years old still live in the community in which they went to high school. By age 25-26 this proportion has dropped to 67%. However, for those from other curricula it has dropped to 59%, suggesting that vocational graduates tend to remain in their original community more than other gradutes do.[3]

Three-fourths of 19-20 year old vocational graduates are single, but by age 25-26 the proportions who are married and single have reversed: 77% are married, 13% are single and 10% separated or divorced. By this age nearly two-thirds are also parents.

As students, those who graduated from approved, reimbursable vocational education programs were largely in the second quarter of their high school classes – in the upper half of the class but not the top quarter. A profile of students by curricula and quarter is shown as Table 3.

[3]This study includes only those who have remained in Ohio.

**Table 3**

**Class academic standing**

| | | Other Curricula | | | |
|---|---|---|---|---|---|
| | Approved Vocational | College Preparatory | Non-approved Vocational | General | Total Other Curricula |
| Top 1/4th | 17% | 32% | 7% | 8% | 19% |
| 2nd 1/4th | 40 | 30 | 35 | 26 | 30 |
| 3rd 1/4th | 22 | 20 | 28 | 27 | 24 |
| Lowest 1/4th | 6 | 16 | 25 | 30 | 23 |
| Don't know* | 16 | 3 | 5 | 10 | 5 |
| Interview base: | (254) | (117) | (57) | (83) | (257) |

*"Don't know" is higher for the approved vocational group as part of this group (see Statistical Appendix) self-reported their quarter. High school records were accessed for those in the other curricula sample and those approved vocational graduates interviewed in the Department of Education study.

The 1971 Ohio Department of Education young adult study[4] showed that more of those in the top quarter of their classes enroll in college preparatory programs, and more of those in the bottom quarter enroll in the general curriculum. Those in the second and third quarter are spread across all curriculum but form a large proportion of those in vocational programs, both approved and non-approved. Similar findings are confirmed here.

By race, seven percent of approved vocational graduates are black while 14% of those in the matched sample from other curricula are black. The higher proportion from other curricula comes because of disproportionate enrollment of blacks in the general curriculum.

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[4] *A Look Toward Educational Redesign,* pg 44.

Men and women are equally distributed in the labor force at age 19-20 but at age 25-26 many of the young women are home taking care of small children. Three-fourths of the employed women graduates of approved, reimbursable vocationa' education were enrolled in business education programs.

The high school program distribution of the young adults interviewed from approved vocational education who are now employed was:

| | |
|---|---|
| Trade and Industrial (T & I) | 32% |
| Business Education | 38 |
| Distributive | 18 |
| Agriculture | 7 |
| Home Economics (job-oriented) | 3 |

The matching sample was enrolled in:

| | |
|---|---|
| College Preparatory | 46% |
| Vocational programs, not approved as reimbursable (consumer, family, industrial arts, etc.) | 22 |
| General | 32 |

Again it must be kept in mind that a sample of employed 19-20 year olds does not include the many college preparatory students who went on to enroll full-time in college.

The demographic profile of young adults from approved, reimbursable vocational education programs shows that, compared to their peers:

Graduates of approved, reimbursable vocational education have more earning power immediately after high school.

They move more into skilled trades and less into service occupations.

They are more apt to remain in their high school community.

They are more apt to have been in the second quarter of their high school class.

# CHAPTER TWO

# THE EMPLOYER VIEW OF THE YOUNG ADULT

Most of the employment supervisors whose opinions have been obtained in this study know reasonably well the young adults whose training they were asked to evaluate. Fifty-seven percent have been immediate supervisor of the employee in question for a period of more than one year. Only 14% have supervised the employee for less than six months, and the remaining for six months to one year.

Half of the young adults came to the jobs they are now on straight from high school, and most supervisors found these employees reasonably well equipped with the skills and technical knowledge needed for entry level employment. There is evidence that graduates of approved vocational programs are perceived as better prepared than those from other curricula, but the difference is not great.

Throughout this report differences will be mentioned only where they are statistically significant based on the sample sizes involved. In all tables these differences will be starred. A discussion of the differences required for statistical significance is given in the Statistical Appendix. Wherever a difference is mentioned or starred in this report it can be assumed that it is meaningful and beyond that which could be a result of sampling error.

**Table 4**

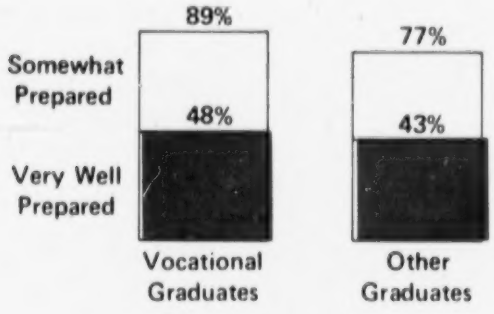
**Do you feel this employee had the skills he needed for entry level employment? Would you say he was . . .** (Asked only of 50% of employers for whom employee came to job straight from high school)

| | Employers Of | | | |
|---|---|---|---|---|
| | Approved Vocational Graduates | | Aggregate Group of Other Curricula Graduates | |
| Very well prepared with skills needed | 48% | 89* | 43% | 77* |
| Somewhat prepared with skills needed | 41 | | 34 | |
| Not too well prepared with skills needed | 5 | | 12 | |
| Not at all prepared with skills needed | 4 | | 7 | |
| Don't know | 2 | | 4 | |
| Interview base: | (123) | | (131) | |

*Statistically significant difference

DID THIS EMPLOYEE HAVE:

SKILLS for entry level employment




TECHNICAL KNOWLEDGE for entry level employment

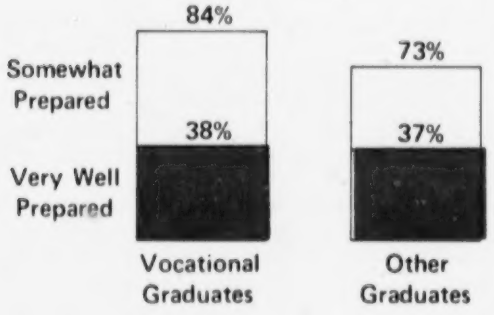


**Table 5**

**Do you feel this employee had the technical knowledge he needed for entry level employment?** (Asked only of 50% of employers for whom employee came to job straight from high school)

| | Employers Of | | | |
|---|---|---|---|---|
| | Approved Vocational Graduates | | Aggregate Group of Other Curricula Graduates | |
| Very well prepared with technical knowledge | 38% | 84* | 37% | 73* |
| Somewhat prepared with technical knowledge | 46 | | 36 | |
| Not too well prepared with technical knowledge | 9 | | 9 | |
| Not at all prepared with technical knowledge | 3 | | 9 | |
| Don't know | 4 | | 8 | |
| Interview base: | (123) | | (131) | |

*(92 for Trade & Industrial)
Statistically significant difference

Employment supervisors were asked to rate their employee on 20 different items. The items represent training, attitudes, and abilities. Rating was along a scale of 1=poor, 2=below average, 3=average, 4=good, and 5=excellent. For each item only 2-4% of supervisors felt unable to rate the employee. The following tables, Tables 6, 7, and 8 show average ratings on this 1-5 scale as given by the 96-98% of employers making each rating.

Ratings for all groups of Ohio high school graduates are above average. On all items, graduates of approved vocational education programs are given ratings equal to or better than the aggregate group of graduates in the matched sample from other curricula. Approved vocational education graduates are rated significantly higher on willingness to learn new job skills or take training, ability to follow suggestions, work habits, promotable, attitudes toward company or employer, concern for productivity, and concern for safety.

**Table 6 Employer ratings for employees in curricula groups shown**

**Considering the work this employee now performs, would you rate his training, abilities, and attitudes in the area named:** (Average rating on scale 5=excellent, 4=good, 3=average, 2=below average, 1=poor Above 3 is a positive rating)

| | Trade and Industrial | Distributive | Business Education | Other Approved Vocational Education | Total Approved Vocational Education | College Preparatory | Non-approved Vocational Programs | General | Total Other Curricula |
|---|---|---|---|---|---|---|---|---|---|
| Skills needed for present job | 3.92 | 3.96 | 4.02 | 3.88 | 3.96 | 4.06 | 3.84 | 3.60 | 3.86 |
| Willingness to learn new job skills or take training | 4.10 | 4.37 | 4.30 | 4.08 | 4.23* | 4.21 | 4.02 | 3.88 | 4.06* |
| Ability to follow suggestions | 4.00 | 4.04 | 4.11 | 4.08 | 4.06* | 3.96 | 3.77 | 3.59 | 3.80* |
| Responsibility and ability to follow thru | 3.94 | 3.73 | 4.04 | 3.80 | 3.92 | 4.00 | 3.61 | 3.67 | 3.81 |
| Work habits | 3.85 | 3.98 | 4.00 | 3.92 | 3.94* | 3.82 | 3.64 | 3.54 | 3.69* |
| Technical knowledge needed for present job | 3.70 | 3.94 | 3.84 | 3.83 | 3.81 | 3.90 | 3.65 | 3.61 | 3.76 |
| Pride of craftsmanship/Quality of work | 3.91 | 4.13 | 3.90 | 3.80 | 3.94 | 4.08 | 3.67 | 3.73 | 3.88 |
| Ability to work with others | 4.10 | 4.22 | 4.27 | 3.96 | 4.18 | 4.17 | 4.07 | 3.98 | 4.09 |
| Promotable | 3.79 | 4.02 | 4.00 | 3.65 | 3.90* | 3.96 | 3.56 | 3.48 | 3.72* |
| Creativity/Originality | 3.59 | 3.53 | 3.57 | 3.28 | 3.54 | 3.74 | 3.43 | 3.15 | 3.49 |
| Ambition/Motivation/Desire to get ahead | 3.79 | 3.88 | 3.74 | 3.60 | 3.77 | 3.85 | 3.52 | 3.52 | 3.67 |
| Adaptable to change | 3.74 | 3.90 | 3.96 | 3.71 | 3.85 | 3.90 | 3.61 | 3.64 | 3.76 |
| Ability to write and speak effectively | 3.68 | 3.75 | 3.71 | 3.60 | 3.70 | 3.97 | 3.56 | 3.65 | 3.78 |
| Attitudes towards company/Employer | 3.96 | 4.06 | 4.11 | 3.83 | 4.02* | 3.99 | 3.88 | 3.62 | 3.85* |
| Concern for productivity | 3.86 | 3.98 | 3.97 | 3.83 | 3.92* | 3.84 | 3.75 | 3.57 | 3.73* |
| Concern for safety | 3.87 | 4.15 | 4.00 | 3.83 | 3.97* | 3.89 | 3.87 | 3.69 | 3.82* |
| Dependability—can be counted upon to do what he promises | 3.96 | 4.24 | 4.28 | 3.92 | 4.14 | 4.20 | 3.96 | 3.76 | 4.00 |
| Ability to meet the public—customers, clients, or others outside whom he must deal with | 3.80 | 4.07 | 4.00 | 3.78 | 3.93 | 4.06 | 3.92 | 3.51 | 3.86 |
| Accuracy in figures and words | 3.74 | 3.94 | 3.82 | 3.79 | 3.82 | 3.95 | 3.78 | 3.49 | 3.76 |
| Ingenuity—ability to meet new situations | 3.72 | 3.67 | 3.74 | 3.63 | 3.71 | 3.81 | 3.52 | 3.48 | 3.64 |
| Interview base: | (82) | (40) | (96) | (26) | (254) | (117) | (57) | (83) | (257) |

*Statistically significant difference between vocational and other curricula graduates

However, when the matched sample from other curricula is examined by its subgroups, college preparatory graduates get overall better ratings than those from the general curriculum do. Ratings for the college preparatory group are largely comparable to those for approved vocational education graduates on a number of training, attitude and ability items and higher on some items. Vocational education graduates heavily outscore those from the general curriculum.

Table 7 shows employer ratings on the same 20 items by age groups. It is evident here that within each curricula sample 25-26 year olds are consistently rated slightly higher – though not significantly so – than 19-20 year olds. This probably reflects the job experience and maturity of the older group rather than a difference in high school educations.

**Table 7**

**Employer ratings for employees by age groups**

**Considering the work this employee now performs, would you rate his training, abilities, and attitudes in these areas:** (Average rating on scale 5=excellent, 4=good, 3=average, 2=below average, 1=poor) Above 3 is a positive rating.

| | Employers of | | | |
|---|---|---|---|---|
| | 19-20 Year Olds Approved Vocational | 19-20 Year Olds Other Curricula | 25-26 Year Olds Appr Voc. | 25-26 Year Olds Other Curricula |
| Skills needed for present job | 3.94 | 3.81 | 4.10 | 3.98 |
| Willingness to learn new job skills or take training | 4.23* | 4.02* | 4.24 | 4.14 |
| Ability to follow suggestions | 4.05* | 3.73* | 4.14** | 3.80** |
| Responsibility and ability to follow through | 3.90* | 3.72* | 4.07 | 3.99 |
| Work habits | 3.92* | 3.64* | 4.07** | 3.69** |

**Table 7** (Continued)

| | | | | |
|---|---|---|---|---|
| Technical knowledge needed for present job | 3.78 | 3.68 | 4.07 | 3.91 |
| Pride of craftsmanship/Quality of work | 3.92 | 3.85 | 4.10 | 3.93 |
| Ability to work with others | 4.21 | 4.06 | 3.96 | 4.14 |
| Promotable | 3.89* | 3.69* | 4.00 | 3.77 |
| Creativity/Originality | 3.52 | 3.38 | 3.67 | 3.70 |
| Ambition/Motivation/Desire to get ahead | 3.75 | 3.64 | 3.90 | 3.74 |
| Adaptable to change | 3.85 | 3.72 | 3.90 | 3.83 |
| Ability to write and speak effectively | 3.69 | 3.73 | 3.77 | 3.86 |
| Attitudes towards company/Employer | 4.02* | 3.84* | 4.03 | 3.86 |
| Concern for productivity | 3.92* | 3.64* | 3.97 | 3.93 |
| Concern for safety | 3.98* | 3.80* | 3.89 | 3.87 |
| Dependability—can be counted upon to do what he promises | 4.14 | 4.98 | 4.13 | 4.06 |
| Ability to meet the public – customers, clients, or others outside whom he must deal with | 3.91 | 3.79 | 4.08 | 3.99 |
| Accuracy in figures and words | 3.79 | 3.72 | 4.04 | 3.85 |
| Ingenuity – ability to meet new situations | 3.69 | 3.57 | 3.86 | 3.77 |
| Intervirew base: | (224) | (30) | (171) | (86) |

*Statistically significant difference approved vocational vs other 19-20 year olds.

**Statistically significant difference approved vocational vs other 25-26 year olds.

Male-female differences are also consistent in the direction that, within each curricula sample, the women receive better ratings from their employers than the men do. Most of these differences are not large. Three-fourths of the vocational graduate women were enrolled in business education.

**Table 8**

**Employer ratings for employees by sex groups**

**Considering the work this employee now performs, would you rate his training, abilities, and attitudes in the areas I will name. I will give you this rating card (HAND CARD). As I read each item on the list tell me whether you consider this employee is excellent, good, average, below average, or poor on this quality.** (Average rating on scale 5=excellent, 4=good, 3=average, 2=below average, 1=poor)

| | Employers of | | | |
|---|---|---|---|---|
| | Women Approved Vocational | Men Appr. Voc. | Women Other Curricula | Men Other Curr. |
| Skills needed for present job | 4.05 | 3.88 | 3.95 | 3.81 |
| Willingness to learn new job skills or take training | 4.31* | 4.16* | 4.21* | 3.97* |
| Ability to follow suggestions | 4.12 | 3.98 | 3.85 | 3.75 |
| Responsibility and ability to follow through | 4.01 | 3.86 | 3.88 | 3.76 |
| Work habits | 3.99 | 3.88 | 3.87 | 3.57 |
| Technical knowledge needed for present job | 3.87 | 3.74 | 3.79 | 3.74 |
| Pride of craftsmanship/Quality of work | 3.97 | 3.95 | 4.02* | 3.78* |
| Ability to work with others | 4.27 | 4.11 | 4.18 | 4.02 |
| Promotable | 4.00 | 3.82 | 3.79 | 3.68 |
| Creativity/Originality | 3.55 | 3.54 | 3.58 | 3.43 |
| Ambition/Motivation/Desire to get ahead | 3.74 | 3.80 | 3.84* | 3.57* |
| Adaptable to change | 3.99* | 3.72* | 3.87 | 3.69 |
| Ability to write and speak effectively | 3.77 | 3.62 | 3.85 | 3.73 |
| Attitudes towards company/Employer | 4.15* | 3.93* | 3.96 | 3.77 |
| Concern for productivity | 4.01 | 3.85 | 3.86* | 3.63* |
| Concern for safety | 4.09* | 3.89* | 3.96* | 3.73* |

**Table 8** (Continued)

| | | | | |
|---|---|---|---|---|
| Dependability—can be counted upon to do what he promises | 4.27 | 4.08 | 4.04 | 3.95 |
| Ability to meet the public – customers, clients, or others outside whom he must deal with | 4.02 | 3.84 | 3.89 | 3.83 |
| Accuracy in figures and words | 3.89 | 3.71 | 3.87 | 3.69 |
| Ingenuity—ability to meet new situations | 3.75 | 3.66 | 3.64 | 3.64 |
| Interview base: | (124) | (130) | (104) | (150) |

*Women significantly different from men.

Two-thirds of employers of young adults in either the approved vocational or aggregate other curricula samples feel the employee's training in high school was "about right." Eleven percent of both groups feel it was too general while only 1-2% feel it was too specific. One-quarter of employment supervisors do not feel qualified to evaluate high school training in these terms. Thus, in terms of generality or specificity, employers show similar satisfaction whether they supervise approved vocational or other graduates.

Employee records of absenteeism are evaluated similarly for the two groups. This perceived similarity is born out by the fact that the two groups received equivalent employer ratings on "dependability" in Table 6.

Employer groups also think similarly that their employees have supervisory potential either immediately or in the long-range future. Sixty percent of employers of approved vocational education graduates say their employees have such potential; 64% of employers of those from other curricula say theirs do. However, this percentage among those in other curricula is pulled up by the college preparatory graduates as Table 9 shows. High school graduates who took the college preparatory curriculum are rated significantly higher than all other curricula graduates for supervisory potential.

**Table 9**

**Do you think this employee has supervisory potential immediately or in the long-range future?**

| | Employers of | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Trade and Industrial | Distributive | Business Education | Other Approved Vocational | Total Approved Vocational | College Preparatory | Non-approved Vocational | General | Total Other Curricula |
| Yes | 62% | 66% | 59% | 46% | 60% | 73%* | 56% | 58% | 64% |
| No | 18 | 24 | 29 | 35 | 25 | 19 | 40 | 34 | 28 |
| Don't know | 20 | 10 | 11 | 19 | 15 | 9 | 4 | 8 | 7 |
| Interview base: | (82) | (50) | (96) | (26) | (254) | (117) | (57) | (83) | (257) |

*College preparatory significantly higher than all other groups

The two-thirds satisfaction level holds again when employers are asked "Do you think this employee's high school could have done a better job of preparing him for employment in this organization?" The highest sagisfaction comes from those whose employees are graduates of college preparatory and trade and industrial curricula.

**Table 10**

**Do you think this employee's high school could have done a better job of preparing him for employment in this organization?**

| | Employers of | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Trade and Industrial | Distributive | Business Education | Other Vocational | Total Approved Vocational | College Preparatory | Non-approved Vocational | General | Total Other Curricula |
| Yes, could have done better | 23% | 40% | 30% | 27% | 30% | 23% | 28% | 34% | 28% |
| No, preparation all right | 70 | 58 | 63 | 58 | 63 | 74 | 67 | 64 | 69 |
| Don't know | 7 | 2 | 7 | 15 | 7 | 3 | 5 | 2 | 4 |
| Interview base: | (82) | (50) | (96) | (26) | (254) | (117) | (57) | (83) | (257) |

The 30% of employers of approved vocation educational graduates who feel the high schools could have done better suggest: more vocational training (20%), emphasize basics such as math, English and spelling (19%), public relations and speaking ability (12%), office and clerical training (12%), responsibility/dependability (11%), mechanical training (5%), better counseling (both academic and career) (5%), and more technical knowledge (3%).

Employers were asked what additional training their employees would need for both the employee's personal growth and development, and for the growth and development of the employing organization. Responses from employers of graduates of approved vocational education programs are:

**Table 11**

**Additional training employee will need** (Answers from employers of approved vocational graduates)

| **For employee's personal growth and development** | | **For growth and development of employing organization.** | |
|---|---|---|---|
| No further training | 11% | No further training | 19% |
| On the job training | 11 | On the job training | 14 |
| Needs to further education | 10 | General business skills | 10 |
| Business courses | 8 | Technical training | 7 |
| Improve attitude/Respect for employer | 7 | Management training | 6 |
| Public relations/Public speaking | 7 | Public relations/Speaking ability | 4 |
| More experience (unspecified) | 5 | Responsibility | 4 |
| Confidence/More aggressive | 5 | Experience (unspecified) | 4 |
| Leadership/Management training | 5 | Vocational training | 3 |
| Technical training | 5 | Should further education | 3 |
| Vocational training | 3 | Should go on to/Finish college | 3 |
| Finish college | 2 | Mathematics | 3 |
| Special training (unspecified) | 2 | Special training (unspecified) | 3 |
| Aware of responsibility | 2 | Improve attitude/Self discipline | 2 |
| Don't know | 21 | Needs additional skills | 1 |
| | | Employee terminated (this occurred between time of young adult employee interview and employer interview) | 1 |
| Interview base: (254) | | Don't know | 13 |

As a final question, employers were asked if they were filling a similar position whether they would seek someone with the same kind of past training and education as the present employee. Eight of 10 said they would, one in 10 said they would not, and 1 out of 10 were unsure. This represents a high commendation for recent graduates of Ohio high schools. However, one must recognize that currently employed persons have already passed through screening processes of their employers.

**Table 12**

**If you were filling a similar position, would you seek someone with the kind of past training and education this employee has had?**

| | Employers of | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trade and Industrial | Distributive | Business Education | Other Vocational | Total Approved Vocational | College Preparatory | Non-approved Vocational | General | Total Other Curricula | |
| Yes | 83% | 86% | 80% | 73% | 81% | 80% | 79% | 73% | 78% | |
| No | 6 | 6 | 10 | 12 | 8 | 12 | 12 | 19 | 14 | |
| Don't know | 11 | 8 | 9 | 15 | 10 | 8 | 9 | 7 | 8 | |
| Interview base: | (82) | (50) | (96) | (26) | (254) | (117) | (57) | (83) | (257) | |

**Summary**

Employers rate vocational graduates higher than an aggregate matched sample of those from other curricula on entry level employment skills and technical knowledge, on willingness to learn new job skills or take training, on ability to follow suggestions, work habits, promotable, attitudes toward company or employer, and on concerns for productivity and safety.

These same employers rate vocational graduates comparable to other graduates on other job-related attitudes and abilities, and on supervisory potential.

Within each curricula group, older graduates generally get slightly better ratings than younger ones, and women better ratings than men from their employers. Most women vocational graduates were enrolled in business education programs.

Eight out of 10 employers of graduates from all curricula say they would choose an employee with similar training if they were filling a comparable position. Less than one-third feel the high schools could have done a better job of preparing their employees for employment. Two-thirds find preparation satisfactory among those from all curricula.

# CHAPTER THREE

# EMPLOYED YOUNG ADULTS -- FROM HIGH SCHOOL TO THE WORK FORCE

**High school experiences**

One of the most striking differences between young adults who are graduates of approved reimbursable vocational education and those who graduated in other curricula is what they perceive as the most important thing they learned in high school.

The vocational graduate is far more likely to name a particular course or a type of course content as the most important thing he learned. The non-vocational graduate is more likely to feel that learning to get along with and communicate with other people was the most valuable aspect.

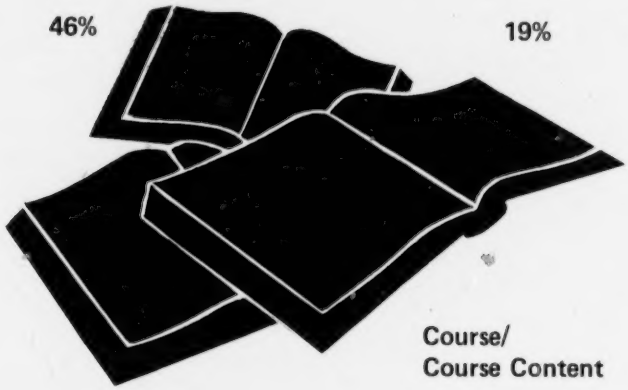
What is the single most important thing you learned in high school?

Vocational Graduates

Other Curricula Graduates

46%

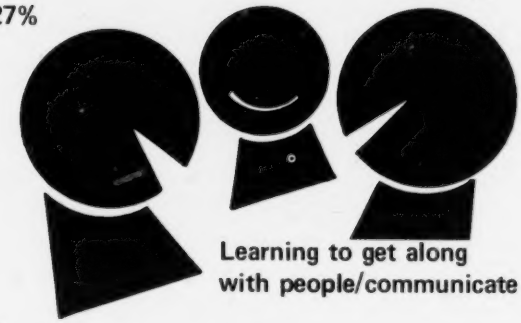
19%



Course/
Course Content

36%

27%



Learning to get along with people/communicate

**Table 13**

**What do you think is the single most important thing you learned in high school?**

| | Approved Vocational Graduates | Aggregate group Other Curricula Graduates |
|---|---|---|
| Name course/Course content | 46%* | 19%* |
| Learning to get along with, communicate with people | 27 | 36 |
| Tolerance | 4 | 7 |

All other ideas had 5% or less mention within each group and don't differ for the two samples.

| | | |
|---|---|---|
| Interview base: | (254) | (257) |

*Statistically significant difference.

Seven out of 10 vocational graduates claim they chose their high school curriculum because it was "what I really wanted," whereas, only half of those from other curricula did. Those from other curricula were more influenced by school counselors.

**Table 14**

**Why did you choose the course program you did in high school? What was your single most important reason from this list?**

| | Approved Vocational Graduates | Other Curricula Graduates |
|---|---|---|
| What I really wanted (of what was offered) | 69%* | 51%* |
| What school counselor said I should take | 9 | 19 |
| Best of what my school offered | 9 | 8 |
| What my parents wanted me to take | 4 | 9 |
| I didn't know what else to take | 4 | 7 |
| What my friends were taking | 3 | 1 |
| Other | 5 | 7 |
| Don't know | 1 | 1 |
| Interview base: | (254) | (257) |

*Statistically significant difference.

Probably because more of them made a personal choice, vocational graduates tend to have done so later in their school careers. This means somewhat more of them changed programs while in high school, though the difference is not significant between them and their peers.

**Table 15**

**At what grade did you choose the course program you ended up with in high school?**

| | Approved Vocational Graduates | Other Curricula Graduates |
|---|---|---|
| 8th grade or below | 9% | 31% |
| 9th grade | 25 | 37 |
| 10th grade | 35 | 23 |
| 11th grade | 22 | 5 |
| 12th grade | – | 1 |
| No response | 1 | 3 |
| Interview base: | (254) | (257) |

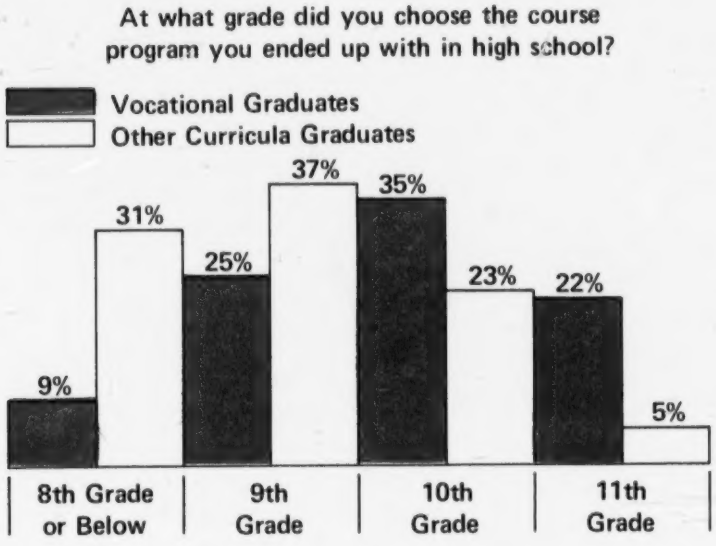


**Table 16**

**Did you change course programs while in high school?**

| | Approved Vocational Graduates | Other Curricula Graduates |
|---|---|---|
| Yes | 22% | 16% |
| No | 75 | 82 |
| No response | 2 | 2 |
| Interview base: | (254) | (257) |

Half of the vocational graduates (48%) who changed programs in high school moved from a college preparatory to a vocational curriculum while the rest moved from general to vocational or within vocational curricula. Five percent moved from vocational to college preparatory although they are listed by their high schools as approved vocational graduates. They are probably among the small group of vocational graduates who later in this chapter are shown as having gone on to college.

Over two-thirds (68%) of vocational graduates say they would choose the same course program if they were to make the choice today. Among the rest, half would opt for an even more vocationally oriented program while half would now select a more academic college preparatory program.

**Table 17**

**If you were to choose your high school program now, would you choose the same type of program you ended up with in high school?**

| | Approved Vocational Graduates | Other Curricula Graduates |
|---|---|---|
| Yes | 68% | 62% |
| No | 29 | 34 |
| Don't know | 3 | 4 * |
| Interview base: | (254) | (257) |

Approved vocational graduates think they got better job and career counseling in high school than their peers feel they got. Both groups rate academic counseling similarly, somewhere between average and good.

**Table 18**

**Rate the counseling you had in high school:**

| | Job and Career | | Academic/Education | |
|---|---|---|---|---|
| | Approved Vocational Graduates | Other Curricula Graduates | Approved Vocational Graduates | Other Curricula Graduates |
| 5=Excellent | 23 | 11 | 11 | 12 |
| 4=Good | 45 | 33 | 52 | 40 |
| 3=Neither good nor bad | 20 | 32 | 24 | 34 |
| 2=Poor | 11 | 18 | 7 | 10 |
| 1=Very bad | 3 | 7 | 5 | 4 |
| Average rating on 1-5 scale | 3.68* | 3.22* | 3.58 | 3.46 |
| Interview base: | (254) | (257) | (254) | (257) |

*Statistically significant difference.

Looking back at high school from today's vantage point, high school graduates from all curricula are similar in judgments of their own feelings of success in school. Not unexpectedly, vocational graduates feel they did better in job and career classes. However, those from other curricula feel they were more successful at making friends, having fun, and in sports. Within the other curricula group, college preparatory students feel they were more successful at making good grades, and doing as well as parents and teachers expected. The average for the other curricula group is pulled down on these academic success ratings by those from the general curriculum.

**Table 19**
**Feelings of success in high school**

**Looking back at what you did in high school, do you think you had any feelings of being successful in some things in high school, or did you feel you were not successful?** (Ratings shown are averages on 1-5 scale on which 1=very unsuccessful, 2=fairly unsuccessful, 3=neither successful nor unsuccessful, 4=fairly successful, 5=very successful)

| | Approved Vocational Graduates | Other Curricula Graduates |
|---|---|---|
| Getting to know the teachers well | 4.06 | 4.13 |
| Learning how to study | 3.59 | 3.58—(College preparatory 3.63—General 3.49) |
| Having fun at school (courses or activities | 4.06* | 4.29* |
| Finding some courses or subject very interesting | 4.18 | 4.23 |
| Making satisfactory grades | 4.04 | 3.93—(4.09 College prep. 3.82 General) |
| Making friends with other students | 4.43 | 4.43 |
| Sports | 3.31* | 3.60* |
| English classes | 3.68 | 3.52 |
| Mathematics classes | 3.59 | 3.58 |
| Career or job preparation classes | 4.23* | 3.55* |
| Being a school leader | 3.24 | 3.10 |
| Being myself | 4.44 | 4.32 |
| Doing as well in high school as my parents wanted me to do | 3.68 | 3.62—(3.75 College prep. 3.47 General) |
| Learning how to talk with all kinds of people | 4.16 | 4.00 |
| Doing as well as my teachers expected me to do | 3.61 | 3.49—(3.59 College prep. 3.48 General) |
| Interview base: | (254) | (257) |

*Statistically significant difference.

**Summer jobs**

Vocational courses make teenagers employable. Eight out of 10 high school graduates held summer or part-time jobs while they were in high school. When asked if their high school work helped them obtain such jobs, the answers are:

"Yes" from 59% of approved vocational graduates

"Yes" from 33% of other curricula graduates

Business and co-op courses helped the girls most in getting summer and after school jobs. Co-op, shop and math classes gave the boys their assist.

Even graduates of other curricula name the vocational courses they took as among the most helpful for getting them summer and part-time jobs: business courses for the girls (who also name English), and shop courses for the boys (who also name mathematics).

**The years since high school and employment today**

Three-fourths of approved, reimbursable vocational graduates who are currently employed went directly from high school to a full-time job (not a summer or temporary job). An additional 10% went immediately to work part-time.

In the time which has passed since the approved vocational graduates left high school, 69% have been employed the entire time. Seven percent went first for further education, then took a job. Five percent took a job, then went back for further education, and later returned to a job. The others have had various combinations of activities including such things as stints in military service (8%), being a housewife, traveling, and unemployment prior to the jobs they now hold. A profile of their occupations today was presented in Table 1, page 2. This shows that a large proportion of vocational graduates 19-20 start their careers in clerical and sales jobs (51%). By ages 25-26 their occupational profile shows more distribution, with some having moved upward into managerial positions (13%). Fourteen percent of 19-20 year old vocational graduates and 33% of 25-26 year olds are classified as skilled craftsmen.

By comparison, half of those from the other curricula group who are employed today took full-time jobs immediately after high school and 11% took part-time jobs. Forty-seven percent of them have been employed continuously since high school.

Half of the currently employed high school graduates have had some post-high school education. This proportion is naturally greater among the 25-26 year olds than among the 19-20 year olds. The wide variety of types of post-high school education are documented in Table 20.

**Table 20**

| Highest level of education | Approved Vocational | | | | | | | Other Curricula | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Trade and Industrial | Distributive | Business Education | Other Appr. Vocational | 19-20 | 25-26 | Total Appr. Vocational | College Preparatory | Non-approved Vocational | General | 19-20 | 25-26 | Total Other Curricula |
| High school graduate/No further | 51% | 38% | 58% | 50% | 52% | 43% | 51% | 31% | 65% | 66% | 57% | 36% | 50% |
| Adult or continuing education (non-credit) | 6 | 4 | 9 | – | 4 | 18 | 6 | – | – | – | – | – | – |
| Other education | 7 | 16 | 5 | – | 7 | 10 | 7 | – | – | – | – | – | – |
| Started apprenticeship | – | – | – | – | – | – | – | 2 | 4 | 1 | 2 | 2 | 2 |
| Still apprentice | 33 | 4 | – | – | 4 | 7 | 4 | – | 7 | 1 | 3 | – | 2 |
| Completed apprentice | 1 | 2 | 4 | – | 3 | – | 2 | – | 2 | 4 | 1 | 2 | 2 |
| Some public vocational/Business school | – | 2 | 1 | – | 1 | – | 1 | – | – | – | – | – | – |
| Still enrolled public vocational/ Business | 5 | – | – | – | 2 | – | 2 | – | – | – | – | – | – |
| Completed public vocational/Bus. | 5 | 2 | 4 | 4 | 4 | – | 4 | – | – | 1 | 1 | – | * |
| Some private vocational/Business school | – | – | 1 | – | * | – | * | 1 | 2 | – | – | 2 | 1 |
| Still enrolled private vocational/ Business school | 1 | 2 | – | 4 | 1 | – | 1 | – | – | – | – | – | – |
| Completed private vocational/Bus. | 1 | 4 | 4 | – | 3 | – | 3 | 3 | 2 | 2 | 2 | 2 | 2 |
| Some technical institute | 2 | 2 | – | 4 | 2 | – | 2 | – | – | – | – | – | – |
| Still enrolled technical institute | 1 | 2 | – | – | 1 | – | 1 | 2 | – | 1 | 1 | 1 | 1 |
| Completed technical institute | 1 | 4 | – | 4 | 1 | 7 | 2 | 1 | – | 1 | 1 | 1 | 1 |
| Education in military | – | 2 | – | – | * | – | * | 2 | 2 | 1 | 1 | 3 | 2 |
| Some junior/Community college | 4 | – | 5 | 4 | 4 | – | 4 | 6 | – | – | 4 | 1 | 3 |
| Still enrolled junior/Community college | 2 | 2 | 2 | 4 | 3 | – | 2 | 2 | – | 2 | 2 | 1 | 2 |
| Completed junior/Community col. | 1 | 2 | 1 | – | 1 | – | 1 | 3 | – | – | 1 | 1 | 1 |
| Some college/University | 1 | 4 | 6 | 15 | 4 | 10 | 5 | 17 | 2 | 5 | 7 | 15 | 10 |
| Still enrolled college/University | – | 6 | 3 | 4 | 3 | – | 2 | 18 | – | 4 | 11 | 6 | 9 |
| College/University graduate | – | – | 1 | – | * | – | * | 3 | – | 4 | 1 | 6 | 3 |
| Some graduate school | – | – | – | – | – | – | – | 2 | – | – | 1 | – | 1 |
| Still enrolled graduate school | – | 4 | – | – | – | 9 | 1 | 4 | – | 1 | – | 6 | 2 |
| Graduated graduate school | – | 2 | – | – | | 3 | * | 2 | – | – | – | 2 | 1 |
| Interview base: | (82) | (50) | (96) | (26) | (224) | (30) | (254) | (117) | (57) | (83) | (171) | (86) | (257) |

*Percent too small to print.

Vocational graduates feel more than others do that their high school education helped prepare them for their first job and helps them on their current one.

**Table 21**

**How well do you feel your high school education helped you or prepared you for the first full-time year-around-type job you took after leaving high school?** (Asked only of those whose first activity after high school was full-time job)

| | Approved Vocational Graduates | Other Curricula Graduates |
|---|---|---|
| Helped me very much | 54%* (70% among business education) | 27%* |
| Helped me a little | 32 | 42 |
| Did not help at all | 12 | 27 |
| No response | 2 | 4 |
| Interview base: | (254) | (257) |

*Statistically significant difference at each rating level on this table.

Table 22

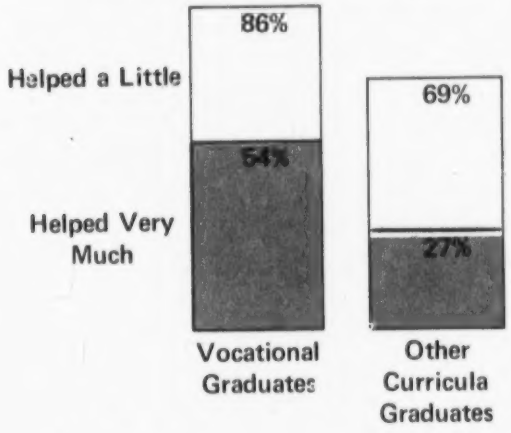
**Do you feel what you learned in high school is helpful in what you are doing now?**

| | Vocational | | | | | | | Other Curricula | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Trade and Industrial | Distributive | Business Education | Other Vocational | 19-20 Yr. Olds | 25-26 Yr. Olds | Total Approved Vocational | College Preparatory | Non-approved Vocational | General | 19-20 Yr. Olds | 25-26 Yr. Olds | Total Other Curricula |
| 5=Helped me very much | 44% | 38% | 57% | 46% | 46% | 63% | 48%* | 30% | 37% | 34% | 32% | 35% | 33%* |
| 4=Helped me somewhat | 40 | 32 | 31 | 38 | 37 | 23 | 35 | 42 | 46 | 41 | 43 | 42 | 42 |
| 3=No opinion | 1 | 2 | – | 8 | 1 | 3 | 2 | 2 | 2 | – | 1 | 1 | 1 |
| 2=Helped me very little | 9 | 20 | 7 | 8 | 10 | 10 | 10 | 17 | 11 | 13 | 16 | 10 | 14 |
| 1=No help to me | 6 | 8 | 4 | – | 6 | – | 5 | 9 | 5 | 12 | 8 | 12 | 9 |
| Average on 1-5 scale | 4.07 | 3.72 | 4.30 | 4.23 | 4.07 | 4.40 | 4.11* | 3.66 | 3.98 | 3.71 | 3.73 | 3.78 | 3.75* |
| Interview base: | (82) | (50) | (96) | (26) | (224) | (30) | (254) | (117) | (57) | (83) | (171) | (86) | (257) |

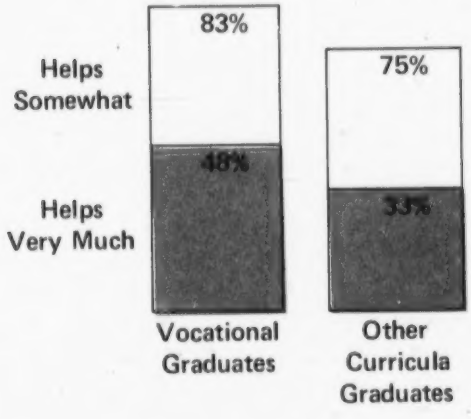
*Statistically significant difference.

DO YOU FEEL WHAT YOU LEARNED IN HIGH SCHOOL. . .

Prepared you for your first job?




Is helpful in what you are doing now?



The vocational graduates who went to work directly from school cite business, math, shop and English courses as the most immediately useful. The courses some wish they had taken, but didn't, are also largely in the business and mathematics areas. One-fifth feel the social sciences courses they took were a waste of time while about 10% think business, English, or math were a waste for them personally.

**Attitudes toward education**

Vocational graduates feel more than those from other curricula that high schools prepare their students to face the problems of real life, and that schools encourage an individual to think for himself. However, they value education in the abstract sense somewhat less than their peers from other curricula do. For example, they agree less than other graduates that the more education a person has, the better he can enjoy life, and they agree less strongly that going to high school for four years is better than holding a job during the same period.

**Table 23**

**Attitudes toward education**

**To find out your personal opinions and attitudes we have chosen a number of statements people have made with which you may either agree or disagree.** (Shown are averages on 1-5 scale on which 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree and 5=strongly agree.) Averages above 3 signify agreement with statement at left.

| | Approved Vocational Graduates | Aggregate Group of Other Curr. Graduates |
|---|---|---|
| A person can learn more by going to high school for 4 years than by working 4 years during that time | 3.15* | 3.45* |
| The more education a person has, the better he is able to enjoy life | 3.26* | 3.44* |
| A person is foolish to keep on going to school after he finishes high school if he can get a job | 2.25* | 2.09* |
| A high school education makes a person a better citizen of this country | 3.43 | 3.35 |
| Education helps a person to use his leisure time to better advantage | 3.69 | 3.72 |
| A high school education is worth all the time and effort it requires | 4.00 | 3.97 |
| Our schools encourage an individual to think for himself | 3.53* | 3.26* |
| Schools prepare their students to face the problems of real life when they get out of school | 3.01* | 2.64* |
| The solutions to the world's problems will come through education | 3.37 | 3.34 |
| High school courses are practical | 3.46 | 3.46 |
| Interview base: | (254) | (257) |

*Statistically significant difference.

**Attitudes toward equal opportunity**

Vocational graduates perceive less discrimination than those from other curricula do. They agree more than others with the statement, "Blacks can get just as far as anyone else in this country if they are willing to work." Most of the employed high school graduates are in similar agreement, however, that those with ability and willingness to work can succeed. This suggests there is still a general subscription to a work ethic.

**Table 24**

**Attitudes toward equal opportunity**

**To find out your personal opinions and attitudes we have chosen a number of statements people have made with which you may either agree or disagree.** (Shown are averages on 1-5 scale on which 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree and 5=strongly agree.) Averages above 3 signify agreement with statement at left.

| | Approved Vocational Graduates | Aggregate Group of Other Curr. Graduates |
|---|---|---|
| Any person with ability and willingness to work hard has a good chance of being successful in this country | 4.12 | 4.02 |
| The government ought to guarantee a reasonable standard of living to those who cannot find work | 3.25 | 3.25 |
| Blacks can get just as far as anyone else in this country if they are willing to work | 3.90* | 3.46 |
| Interview base: | (254) | (257) |

*Statistically significant difference.

**Job attitudes**

Vocational graduates are markedly different from others among the currently employed in their attitudes towards their jobs.

Of particular significance are these differences:

Vocational graduates feel more that there is a good future on their jobs.

They feel more that they like the people they work with.

They feel more that they will get higher pay through promotions.

They disagree more that the only thing they want from a job is a paycheck.

They find their job supervision more satisfactory.

More try hard to do high quality work.

They show less desire to change occupations.

They feel better trained for their present jobs.

They feel more that they are doing the kind of work for which their educations prepared them.

Fewer feel their job is temporary.

More feel their employer cares about safe working conditions.

Fewer feel it is OK to be absent when they feel like it.

Young adults from both groups, however, tend to be somewhat dissatisfied with their pay.

Overall, the number of job attitudes upon which the approved vocational education graduates as a group show differences with their peers from other curricula is marked in Table 25. All of these differences are in a direction which should make employers favor the vocational graduates as employees who have been presented with a more positive outlook on jobs.

**Table 25**

**Attitudes toward present job**

**We are going to ask you now about your agreement or disagreement with different statements about your present job.** (Shown are averages on a 1-5 scale on which 1=strongly disagree, 2=disagree, 3=neither agree or disagree, 4=agree and 5=strongly agree.) Averages above 3 signify agreement with statement at left.

| | Trade and Industrial | Distributive | Business Education | Other Vocational | Total Approved Vocational | College Preparatory | Non-approved Vocational | General | Total Other Curricula |
|---|---|---|---|---|---|---|---|---|---|
| There is a good future for me on my job | 3.79 | 3.60 | 3.55 | 3.73 | 3.66* | 3.38 | 3.28 | 3.28 | 3.33* |
| My job is boring | 2.44 | 2.18 | 2.42 | 2.50 | 2.39 | 2.49 | 2.44 | 2.55 | 2.50 |
| I like the people I work with | 4.09 | 4.34 | 4.21 | 4.15 | 4.19* | 3.70 | 3.89 | 3.88 | 3.80* |
| I will get more pay by promotions | 3.74 | 3.68 | 3.77 | 3.23 | 3.69* | 3.44 | 3.54 | 3.39 | 3.45* |
| The only thing I want from my job is the pay check | 2.52 | 2.18 | 2.11 | 2.38 | 2.29* | 2.51 | 2.58 | 2.66 | 2.58* |
| I have good supervision at work | 3.76 | 4.08 | 3.85 | 3.77 | 3.86* | 3.44 | 3.63 | 3.58 | 3.53* |
| I try hard to do high quality work | 4.23 | 4.36 | 4.38 | 4.31 | 4.32* | 3.80 | 3.95 | 3.92 | 3.87* |
| I would like to change to another occupation | 2.95 | 2.80 | 2.74 | 2.54 | 2.80* | 2.95 | 2.82 | 3.13 | 2.98* |
| I will only get more pay by staying on the job a long time (seniority) | 3.00 | 2.70 | 2.95 | 2.81 | 2.90 | 2.84 | 2.67 | 2.87 | 2.81 |
| I would like to change to a different employer but keep same kind of work | 2.56 | 1.98 | 2.42 | 2.38 | 2.37 | 2.45 | 2.56 | 2.42 | 2.47 |
| I am very well trained for my present job | 3.80 | 4.08 | 3.99 | 3.88 | 3.94* | 3.47 | 3.61 | 3.55 | 3.53* |
| I work to support my family | 2.83 | 2.68 | 2.13 | 3.38 | 2.59* | 2.91 | 2.72 | 2.98 | 2.89* |
| This is the kind of work for which my education prepared me | 3.23 | 3.04 | 3.54 | 3.35 | 3.32* | 2.74 | 2.88 | 2.49 | 2.69* |
| The pay is just for my training and experience | 3.00 | 2.70 | 2.66 | 2.85 | 2.80 | 2.95 | 2.89 | 2.99 | 2.95 |
| I consider my job temporary for me | 2.82 | 2.52 | 2.72 | 2.77 | 2.72* | 3.01 | 2.81 | 3.00 | 2.96* |
| My employer cares about safe working conditions | 4.15 | 4.32 | 4.04 | 3.77 | 4.10* | 3.61 | 3.81 | 3.73 | 3.69* |
| It's OK for me to be absent when I feel like it | 2.16 | 1.88 | 2.01 | 2.42 | 2.07* | 2.53 | 2.16 | 2.12 | 2.31* |
| I like my job | 3.84 | 4.06 | 4.01 | 3.92 | 3.96 | 3.59 | 3.70 | 3.60 | 3.62 |
| Interview base: | (82) | (50) | (96) | (26) | (254) | (117) | (57) | (83) | (257) |

*Statistically significant difference between vocational and other curricula graduates.

**Continuing education**

Vocational graduates have less expectation of continuing their education than other employed young adults do.

**Do you plan to get more education in the future?**

| | Yes |
|---|---|
| **19-20 year olds** | |
| Approved vocational graduates | 57% |
| Other curricula graduates | 71 |
| **25-26 year olds** | |
| Approved vocational graduates | 57 |
| Other curricula graduates | 74 |

The reasons those vocational graduates who plan more education name for obtaining it: (1) to move up to a better or more interesting job (50%), (2) for personal enrichment and enjoyment (39%), (3) to be more competent at the present work (10%), and (4) required for getting more pay (7%).

Among those who plan further education, the kinds of institutions and programs in which they expect to enroll are: apprenticeship (18%), junior or community college (16%), technical institute (13%), adult or continuing non-credit education (13%), public vocational or business school (12%), 4-year college or university (10%), private vocational or business school (8%), and go on to graduate school (6%).

**Now and the future**

The young adults interviewed were asked what they would like to be doing in their job or career ten years from now. Twenty percent of the male vocational graduates and 11% of the women said they would like to be in a management or supervisory position. Seventeen percent of the men and 3% of the women would like to own their own businesses.

Thirty percent of the women would choose to be housewives 10 years hence. Twenty-one percent of the men and 7% of the women would choose to do the same thing they are doing now.

Nine percent of vocational graduates say simply that they would like to be "successful" and 5% say they would like to be in contact with other people and helping people. The rest give a variety of answers including more education and particular career skills or occupations as goals for the next decade.

Despite their more positive attitudes toward their present jobs, young adults who are vocational graduates are no different from their employed peers in measures of overall happiness and life satisfaction now. In both curricula samples, slightly more than one-quarter feel that what they are doing now is better than what they expected to be doing by now; slightly less than half feel it is about the same; and one-quarter say what they are doing is not as good as they had expected.

Only 15% find their present life not very satisfying. One-fifth find their present life completely satisfying, and a two-thirds majority are in-between, saying life is "pretty satisfying."

The employed young adult, whether vocationally or non-vocationally educated, has a positive outlook on life. Ninety-two percent agree that they look forward to the next five years.

**Summary**

More than other high school graduates, vocational students decided on their course program because it was what they really wanted. They tend to have chosen their program somewhat later in their high school careers, and give better ratings to their high school job and career counseling.

Their feelings of success in high school are similar to those from other curricula. Their attitudes toward education are somewhat similar except that they feel more that high schools prepare their students to face the problems of real life, and somewhat less that the more education a person has the more he enjoys life.

Vocational graduates credit vocational courses as a real assist in getting summer jobs as teenagers, and those from other curricula found vocational courses such as typing helpful for the same reason.

Vocational graduates feel significantly more than others that their high school educations prepared them for their first full-time post-high school job and that what they learned in high school helps them with what they are doing today. A smaller proportion of vocational graduates than those from other curricula plan to continue education in the future.

A variety of job attitudes are markedly more positive among the vocational graduates than among graduates of other curricula.

# CHAPTER FOUR

## SUMMARY

Personal interviews with 511 employed graduates of Ohio high schools and their 511 immediate employment supervisors demonstrate that approved, reimbursable vocational education – as it was offered to the classes of 1964 and 1970 – is showing positive and demonstrable benefits for employers and employees.

These benefits are shown by comparisons between 254 graduates of approved, reimbursable vocational education and 257 graduates in a matched sample from other curricula.

**Employers rate their employees**

Employers of the vocational graduates give their employees higher ratings on a number of attributes than do those who employ graduates of other curricula. In particular, vocational graduates are judged better than an aggregate sample of college preparatory and general curriculum graduates on:

Skills for entry level employment

Technical knowledge for entry level employment

Willingness to learn new job skills or take training

Ability to follow suggestions

Work habits

Promotable

Attitudes toward company or employer

Concern for productivity

Concern for safety

When employees are rated by their employers on such other qualities as skills for present job; responsibility; technical knowledge; pride of craftsmanship; ability to work with others; creativity; ambition and motivation; adaptability; accuracy, ingenuity; and ability to meet the

public, vocational graduates are judged equal to those from other curricula. On no attribute do their employers rate them lower than do employers of those from other curricula rate their employees, although within the aggregate sample of graduates of other curricula the college preparatory group is rated higher on some attributes and comparable on others to the vocational group.

Employers of women vocational graduates give somewhat higher ratings to their employees on all attributes measured than do the employers of men. These differences are significantly better on willingness to learn new job skills, adaptability to change, attitudes toward the employer, and concern for safety. Seventy-four percent of employed women vocational graduates studied business education.

Employers of vocational graduates and employers of those from other curricula feel similarly about whether the young adults working for them have supervisory potential (62% yes), whether high school preparation was "about right" – rather than too general or specific (63% yes), and whether or not they would seek a person with similar training for a similar position (80% yes). Employers of both groups evaluate absenteeism similarly. Two-thirds are satisfied with the preparation the employee had in high school.

The 30% of employers who think vocational graduates could have been better prepared by their high schools opt for still more vocational training; more attention to such basics as math, English and spelling; more training in public speaking; office skills; and responsibility.

**Vocational graduates look back at their high school experiences**

Sixty-nine percent of approved, reimbursable vocational graduates chose their course program in high school because it was "what I really wanted." Fifty-one percent of those from other curricula chose for this same reason.

Because the choice was their own for so many vocational students they tend to have selected their curriculum later than did those from college preparatory, non-approved vocational, and general programs. Nearly all vocational graduates made their selection between 9th and 11th grades, one-third of them doing so in 10th grade.

Now at ages 19-20 or 25-26, 68% of the vocational graduates say they would make the same course program choice today. Among those who

would choose differently now, half would select an even more vocationally oriented program and half would select a more academic college preparatory one.

Looking back at their high schools, graduates of approved vocational education programs rate the job and career counseling they had there significantly better than do those from other curricula. They rate their academic/education counseling similarly.

There are few differences in the feelings of success in high school of vocational graduates when compared to these feelings among graduates of other curricula. As might be expected, they felt more successful in job and career courses. However, they felt somewhat less successful at sports and having fun.

Vocational graduates found high school courses helped them get part-time and summer jobs while in high school more than other graduates did. Even among those from other curricula, it was most often the business and shop courses which made them employable as teenagers.

Vocational graduates say the single most important thing they learned in high school came from a course or courses, while graduates of other curricula say the single most important thing they learned in high school was how to get along with and communicate with people.

**The years since high school**

Three-fourths of vocational graduates went directly from high school to a full-time job. Half (54%) of those immediately-employed say their high school education helped them very much as preparation for that first job. Another one-third say high school helped them a little.

Half (49%) of approved vocational graduates have obtained further education since high school in a wide variety of apprenticeship, non-credit, and credit programs. Fifty-seven percent expect to get more education in the future. This is less than the 72% expectation among graduates of other curricula.

Today the occupational and income profiles of vocational graduates compare with those of others as follows:

**Occupations of young adult employees by census categories**

| | Approved Vocational Education Graduates | | Other Curricula Graduates | |
|---|---|---|---|---|
| | Age 19-20 | Age 25-26 | Age 19-20 | Age 25-26 |
| Professional/Technical | 3% | 3% | 2% | 16% |
| Farm owner/Manager | 1 | 3 | – | – |
| Business officials | 6 | 13 | 1 | 10 |
| Clerical/Sales | 51 | 20 | 41 | 22 |
| Skilled craftsmen/Foremen | 14 | 33 | 9 | 14 |
| Operative/Kindred workers (unskilled) | 12 | 20 | 9 | 22 |
| Service workers/Laborers | 10 | 7 | 20 | 12 |
| Others | 2 | – | 16 | 2 |

**Individual income**

| | Approved Vocational Graduates | | Other Curricula Graduates | |
|---|---|---|---|---|
| | Age 19-20 | Age 25-26 | Age 19-20 | Age 25-26 |
| Less than $3,000 | 11% | 3% | 36% | 2% |
| $3,000-4,999 | 30 | 3 | 29 | 6 |
| $5,000-5,999 | 24 | 20 | 13 | 7 |
| $6,000-6,999 | 13 | 10 | 11 | 12 |
| $7,000-7,999 | 15 | 27 | 6 | 35 |
| $10,000-14,999 | 1 | 27 | 2 | 16 |
| $15,000 and over | – | – | – | 3* |

*These individuals were college preparatory in high school and are probably college graduates now.

**The attitudes of approved vocational education graduates as young adults**

Vocational graduates feel significantly more than other graduates that what they learned in high school is helpful in what they are doing now. They are similar to other graduates in finding that life now has met their high school expectations. Three-fourths find their expectations have been matched or bettered, while one-fourth say their aspirations have not been met.

When attitudes toward education, equal opportunity and the future are compared with those of other graduates, vocational graduates differ in these ways:

They agree, but agree less than other graduates, that a person can learn more by going to high school than by working for 4 years.

They agree, but less than others, that the more education a person has, the better he is able to enjoy life.

They disagree that a person is foolish to keep on going to school after he finishes high school if he can get a job, but disagree less than others.

They feel more that our schools encourage an individual to think for himself.

They feel more that schools prepare their students to face the problems of real life.

They appear to subscribe more strongly to the work ethic and perceive less discrimination because they agree more than others that blacks can get just as far as anyone else if they are willing to work.

Like those from other curricula, these young adults look forward to the future.

The really big difference between vocational graduates and those from other curricula, however, is in their more positive attitudes toward their jobs.

Vocational graduates feel more that there is a good future on their jobs.

They feel more that they like the people they work with.

They feel more that they will get higher pay through promotions.

They disagree more that the only thing they want from a job is a paycheck.

They find their job supervision more satisfactory.

More try hard to do high quality work.

They show less desire to change occupations.

They feel better trained for their present jobs.

They feel more that they are doing the kind of work for which their educations prepared them.

Fewer feel their job is temporary.

More feel their employer cares about safe working conditions.

Fewer feel it is OK to be absent when they feel like it.

**Concluding remarks**

Employers are rating young graduates of approved vocational education either equal or significantly better than an aggregate group of graduates of other programs on job-related attributes. Former vocational students command better pay in the years immediately after high school than do those from other curricula who are employed.

At ages 19-20 and 25-26 vocational graduates are significantly more positive than their employed peers in their attitudes toward their jobs, their satisfaction with their employers, their expectations for promotion, and in striving to do quality work.

They are similar to their peers in finding that life now matches or betters their high school expectations – for three-fourths it does. Ninety-four percent are looking forward to the next five years.

# STATISTICAL APPENDIX AND STUDY METHODOLOGY

**Samples**

Four separate samples are used in this study, and one of these was selected in two stages. Therefore, it is necessary to describe a number of steps in the sampling process.

Every interview in the study was part of a matched employee-employer pair in which the young adult employee was interviewed first, and later his immediate employment supervisor. This means that more employee interviews were completed than could finally be used. The employee interview had to be dropped if his employment supervisor was unwilling to participate.

Both employer samples were obtained by using the name of the individual whom the young adult indicated at the end of his interview as his immediate job supervisor.

Samples used in the study were:

254 graduates of approved reimbursable vocational education programs.

45 currently employed and interviewed in July-August 1971 as part of young adult study for Division of Planning and Evaluation, Department of Education, State of Ohio.

209 oversample selected on basis to be described below. Interviewed July-August 1972.

254 employment supervisors of the above vocational graduates. Interviewed June-July-August 1972.

257 graduates of college preparatory, non-approved vocational, and general curricula, currently employed and chosen as closely as possible to match demographics of the approved vocational

group. Interviewed in July-August 1971 as part of young adult study for Ohio Department of Education.

257 employment supervisors of the above non-approved vocational graduates. Interviewed June-July-August 1972.

Since 302 of the young adults were interviewed as part of the 1971 Ohio Department of Education study, it is first necessary to review their method of selection. This is described in more detail in the study report now on file in the Division of Planning and Evaluation, Department of Education.[5]

In brief, an area probability-proportionate-to-size sample containing 300 sampling points and a total of 60,000 homes was drawn for the State of Ohio on the basis of the 1970 U.S. Census count of occupied dwelling units. Each of these 60,000 homes was canvassed in the summer of 1971 by a professional interviewer to identify residents born in 1952 (then 19 years old) and 1946 (then 25 years old). On the basis of census data on age distribution it had been estimated that 2820 persons born in these years should live in these homes (the definition of living being using the home as the permanent address). Interviewers actually identified 2669 such individuals and later completed hour-long interviews with 70% of them who had had their last year of high school in Ohio, 1811 interviews in all.

As part of each interview the employment of each respondent was recorded, the name of his immediate job supervisor, and the high school from which he graduated. A great many of these individuals of 19 and 25 were students and housewives not currently in the labor force.

After interviews were completed, a short questionnaire was sent to the high school of each respondent with a covering letter on Department of Education letterhead. This questionnaire asked for designation of the student's curriculum program (and if vocational, whether approved reimbursable), date of graduation or leaving school, quartile in class, and other record data.

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[5]Bryant, Barbara Everitt "Young Adults Look Back at their High School Experiences," Appendix I. (Detroit: Market Opinion Research. Unpublished report 1972)

One hundred and thirty-five graduates of approved, reimbursable vocational education were identified among the 1811 persons interviewed. Of these only 82 were currently employed. The majority of those unemployed were full-time housewives, but some approved vocational education graduates were full-time students. Employment supervisor interviews were completed with 45 employers of the 82. Some employers were unwilling to participate, and the fact that this study was conducted one year after the initial study made tracking more difficult.

The Ohio Advisory Council for Vocational Education wished to conduct this study with a sample of 250 employed vocational education students, and their employers. This meant obtaining an oversample of at least 205 employee-employer pair interviews.

To draw the oversample, a list was made up of the high schools in the original sample which the 135 approved vocational graduates (both currently employed and those not in the labor force) attended. The list came to 99 schools. The Ohio Advisory Council for Vocational Education wrote to each of these schools and asked for randomly drawn names of graduates of the classes of 1970 and 1964. The requests for names were in proportion to the number of students from each class and school in the original sample. Year of graduation, sex, and enrollment in either trade and industrial, distributive, business education, agriculture, or home economics was chosen to match the profile of approved vocational education graduates identified in the earlier study. Seven names were used from each school for each final pair of employee-employer interviews needed. This was to account for the expectation that only half of the students would currently be employed, address records from high schools would not be up to date – particularly for the class of 1964 – and not all employers would participate.

The profile of approved, vocational education graduates from the statewide Ohio Department of Education study, and the profile of graduates among the 254 with whom interviews were completed for this study are shown:

| | Statewide profile of approved, vocational graduates from 1971 Department of Education, young adult study | Profile of interviews completed with approved vocational graduates for current study. |
|---|---|---|
| **Curriculum:** | | |
| Technical and industrial | 32% | 32% |
| Distributive | 19 | 20 |
| Business education | 38 | 38 |
| Home economics (job oriented) | 4 | 3 |
| Agriculture | 7 | 7 |
| **Sex:** | | |
| Male | 49 | 51 |
| Female | 51 | 49 |
| **Age:** | | |
| Born 1946 | 13 | 12 |
| Born 1952 | 87 | 88 |
| **Race:** | | |
| White and others | 86 | 92 |
| Black | 14 | 7 |
| **Quarter in high school class:** | | |
| Top 1/4th | 14 | 17 |
| 2nd 1/4th | 27 | 40 |
| 3rd 1/4th | 32 | 22 |
| Bottom 1/4th | 27 | 6 |
| Don't know | – | 16* |

*Quarters in Department of Education study obtained from high school records while those in oversample for this study were self reported.

The matched sample of graduates from other curricula was selected from the 484 names of those who were (1) high school graduates, (2) currently employed, and (3) had given the names of their immediate employment supervisor. Again there were some problems of tracking because of the year's time elapsed between the young adult interviews and the attempts to contact employers. However, with considerable efforts at tracking, interviews were completed with 257 employers. The profiles of young adults from approved vocational education and from other curricula match closely enough that it was felt no weighing of samples was called for. Differences such as those in class quarter are shown from both this, and the earlier Department of Education study to be true differences between vocational and other curricula groups. The smaller proportion of those born in 1946 in the vocational sample reflects the lower number of approved, reimbursable vocational offerings in earlier years.

| | Approved Vocational Graduate Sample | | Other Curricula Sample | |
|---|---|---|---|---|
| Quarter in high school class: | % | Number | % | Number |
| Top 1/4th | 17% | 42 | 19% | 48 |
| 2nd 1/4th | 40 | 102 | 30 | 76 |
| 3rd 1/4th | 22 | 56 | 24 | 61 |
| Bottom 1/4th | 6 | 14 | 23 | 58 |
| Don't know* | 16 | 40 | 5 | 14 |
| **Sex:** | | | | |
| Male | 51 | 130 | 58 | 150 |
| Female | 49 | 124 | 40 | 104 |
| **Race:** | | | | |
| Black | 7 | 17 | 14 | 35 |
| White and other | 93 | 234 | 85 | 217 |
| **Age:** | | | | |
| Born 1946 | 12 | 30 | 33 | 86 |
| Born 1952 | 88 | 224 | 67 | 171 |
| **Marital status:** | | | | |
| Single | 69 | 176 | 69 | 178 |
| Married | 28 | 70 | 26 | 68 |
| Separated, divorced | 3 | 7 | 5 | 11 |

*Quarters in Department of Education study obtained from high school records while those in oversample for this study were self reported.

| By type of curricula: | Approved Vocational Graduate Sample % | Approved Vocational Graduate Sample Number | Other Curricula Sample % | Other Curricula Sample Number |
|---|---|---|---|---|
| Trade and Industrial | 32% | 82 | – | – |
| Business education | 38 | 96 | – | – |
| Distributive | 18 | 40 | – | – |
| Agriculture | 7 | 18 | – | – |
| Home Economics (job-oriented) | 3 | 8 | – | – |
| College Preparatory | – | – | 46 | 117 |
| Vocational program not approved as reimbursable | – | – | 22 | 57 |
| General | – | – | 32 | 83 |

There appears to be little difference in family socio-economic status when the sample of approved, vocational graduates is compared with the matched sample from other curricula. Three measures often used for socio-economic status are mother's and father's levels of education and father's occupation. These are reported for the two samples in the following table.

**Socio-economic status measures**

**What was the highest grade of school completed by your mother?**
**What was the highest grade of school completed by your father?**
**What is/was your father's occupation?**

| Education | Mother's | | Father's | |
|---|---|---|---|---|
| | Approved Vocational Graduates | Other Curricula Graduates | Approved Vocational Graduates | Other Curricula Graduates |
| Grade school or less | 12% | 10% | 17% | 21% |
| Some high school | 28 | 23 | 28 | 24 |
| Graduated high school | 47 | 52 | 40 | 34 |
| Some college | 5 | 8 | 6 | 12 |
| Graduated college | 4 | 5 | 5 | 5 |
| Post graduate work | – | – | – | 2 |

| Father's occupation | Approved Vocational Graduates | Other Curricula Graduates |
|---|---|---|
| Retired | 3% | 2% |
| Unemployed/Disabled | 2 | 2 |
| Service workers/Laborers | 10 | 7 |
| Operatives/Kindred workers (unskilled) | 17 | 19 |
| Skilled craftsmen | 24 | 32 |
| Clerical/Sales | 7 | 9 |
| Officials/Business owners | 17 | 15 |
| Farm owners/Managers | 6 | 2 |
| Professional/Technical | 6 | 8 |

**Interviews**

Interviews were conducted using structured questionnaires developed jointly by professional personnel of the Division of Planning and Evaluation, Department of Education, State of Ohio, and Market Opinion Research (for young adults) and by the Ohio Advisory Council for Vocational Education and Market Opinion Research (for employers).

Professional interviewers conducted at-home and in-place-of-work interviews with each group, respectively.

**Coding and Data Processing**

Coding, keypunching and computer runs of data were made by Market Opinion Research.

**Sampling Error Tolerance and Statistically Significant Differences between Subgroups**

Sampling error tolerance at 95% confidence level is:

+6.3% for each of the four samples of 254/257

+4.5% for either of the samples of 511 young adults or employers

Ninety-five percent confidence means that if repeated samples were drawn in the same manner, in 95 out of 100 the percent giving an answer in the sample would fall within this tolerance of the true value in the population from which the samples were drawn.

In a study such as this, it is often important to know whether two subgroups in the samples are giving statistically significantly different answers, that is, differences greater than could be caused by sampling error. Throughout this report, differences between group means are starred if they are significant on the basis of a t-test. Differences in percentages between two groups are starred on the basis of a significance test for difference in proportions. All tests for significance are at the .05 level, and based on the sample sizes of the subgroups reported.